

addition, regional transmission benefits and potential cost sharing (such as with out-of-state utilities) were not captured in the analysis.

The advantage to using the incremental facility approach in RETI is that it identifies, quantifies and costs specific transmission facilities required to deliver a quantity of energy to the grid and to load areas. Alternative approaches, such as a simple percentage of resource cost or estimating a flat dollar-per-MW-mile, will provide for a transmission cost but do not adequately account for the cost of transmission based on distance from generation site to delivery point. A limitation to this approach is that it may not mirror the development of transmission, even among the same resources identified in RETI. Transmission lines will likely be added to the California grid to not only interconnect specific renewable resources to a specific load area, but to enhance reliability and reinforce the transmission system in total. This level of analysis can only be completed by conducting comprehensive load-flow modeling, which is the focus of the RETI Phase 2 effort.

The relative costs of CREZs may change when a more accurate transmission system cost assessment is complete. This assessment would include the potential to serve multiple zones and balancing areas as opposed to the incremental approach taken in Phase 1B.

1.8.2 Capacity Costs and Integration Costs

To value the capacity of renewable resources RETI used an assumption developed by the California Energy Commission in their cost of generation analysis that the installed cost of a fully dispatchable combustion turbine is \$204/kW-year. This assumption was agreed to among the Phase 1A working group in Spring 2008 and used in the resource valuation and rank cost calculation used in RETI. To understand the sensitivity of the resources and CREZs to changes in the capacity value, Black & Veatch conducted a sensitivity analysis assuming the capital cost of a CT was half of the cost identified by the CEC.

The appropriate method to value capacity from resources is hotly debated. One could argue that to the extent that a renewable resource results in avoiding the development of conventional resources, the total cost of developing that generation is part of the capacity value. This “raw” capacity value is equal to the capital cost of the avoided resource. This value does not however, consider the market revenues of energy generation when dispatching that resource. Arguably, one would only build generation with the intention of using it at least partly to serve demand, and the revenues earned from selling energy from the facility when it is infra-marginal should be considered when valuing the capacity benefit of the resource. In this case the value of capacity is the

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